

**COMBINED FIXED SATELLITE SERVICE AND MOBILE PLATFORM
SATELLITE SERVICE COMMUNICATION SYSTEM**

ABSTRACT OF THE DISCLOSURE

A communication system for mobile platforms includes a receiver subsystem (RS) and a transmitter subsystem (TS). A satellite is in communication with the RS and the TS of the mobile platform. A ground station includes a transmitter subsystem (TS) and a receiver subsystem (RS). The TS of the ground station transmits a forward link to the satellite and receives a return link from the satellite. The forward and return links include Fixed Satellite Service (FSS) data and Mobile Platform Satellite Service (MPSS) data in the same frequency band. The frequency band is the Ku frequency band between 10.7 and 15.0 GHz.